



Enabling Grids for E-science

# General relationships with EGEE JRA1 SA3 SA2 ETICS

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[www.eu-egee.org](http://www.eu-egee.org)



- **News from SA2 in EGEE III**
- **Summary of SA2 results**
- **IPv6 approach**
- **Relationships with EGEEJRA1 SA3 SA2 ETICS**
  - JRA1
  - SA3
  - ETICS
  - SA2
- **Discussion**

## What can we offer to simplify the porting:

- An automatic code checker in the building tools to check internal dependencies, see ETICS;
- A state of the external dependencies;
- SA2 provides **a test methodology** (<https://edms.cern.ch/document/810278/>);
- **A testbed** (GARR and UREC testbed) providing:
  - IPv6 support;
  - Translation mechanism: NAT-PT, Machines with IPv4 mapped address
- A tool to automate the testing → **ETICS**
  - install your gLite component automatically as much as possible on the IPv6 testbed machines, test it, and retrieve the result;

## An example of porting component on IPv6: BDII

- **IPv6 has now to be considered into the normal process of gLite component management**
  - Coding process
  - Testing process
  - Validation process
- **IPv6 approach has now to be handled between different EGEE activities with the help of ETICS**
  - JRA1 activity
    - Porting activity
    - Testing
  - SA3 Validation activity
  - **ETICS**
  - SA2
    - Testbed, provide advise, training course

- **Make a list of gLite components with priority**
  - Various criteria: easy to port (Java, Python), or nearly ready, or network interaction, or...
- **Dependencies analysis of the selected gLite component**
  - **Internal gLite component dependencies**
    - Code checker of ETICS building;
  - **External dependencies**
    - List of status of external component (SA2, EUChinaGrid);
    - Upgrade to an IPv6 compliant;
    - Try another component with similar functionalities.
- **Implementation choices for the selected component**
  - Mapping IPv4 address in IPv6 or not? Depending on the targeted OS and the gLite component implementation (PERL, Java...);
  - Write a **network level independent** code: IP.
- **Port the code of the component on IPv6**
- **Test the IPv6 compliance on the testbed**
  - Installation and configuration;
  - Basic features;
  - Test the interplay with other components of gLite.

- **JRA1 propose to set up a working group on IPv6**
  - An official EGEE working group
- **How can we help JRA1 to test IPv6 code?**
  - Using GARR and UREC testbed, long term ?
  - Improve JRA1 testbed?
- **David Smith (CERN) success to port the LCG-DM module (i.e. the LFC and DPM components) on IPv6.**
- **The budget of JRA1 has been severely cut off, we have to take this fact into consideration.**

- **A general presentation of IPv6 has been given**
  - Assess how IPv6 transition can impact SA3 activity
- **Validation process and IPv6?**
  - How to integrate IPv6 in validation process?
  - Need a testbed?

- **ETICS**

- Identify the missing bricks
  - Co-scheduling?
  - Automatic installation procedure?
- Could ETICS help JRA1 for the testing?
- Could ETICS help S3 for the validation process?



- **How can we hand over the testing activity to JRA1?**
  - Should we help to build an IPv6 testbed for JRA1 at CERN?
- **GARR**
  - Will continue its investment on IPv6 activity
- **UREC**
  - The task is slowed down at the present moment
  - UREC will provide a junior engineer on this task

- **How to set up an efficient IPv6 working group?**
  - Update the gLite code based on available programming guidelines → **network level independent** code
- **Considering the drastic cut in JRA1 budget, is it realistic to try to build a complete gLite IPv6 compliant by the end of EGEE III?**
- **Realistic objectives for EGEE III**
  - Set up all necessary tools in EGEE infrastructure to obtain an IPv6 compliant middleware
    - Help developers to set up IPv6 in their network
    - A testbed to test a IPv6 gLite component (JRA1)
    - A testbed to validate IPv6 component (SA3)
  - A strategy with regard to external components
  - Port a few gLite components on IPv6, according to IPv6 working group conclusions